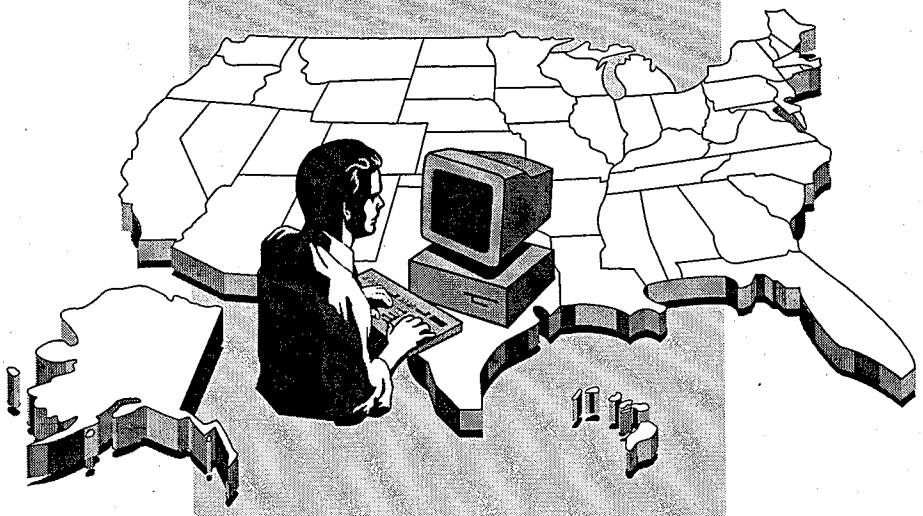
FINAL REPORT

A SURVEY OF TRANSPORTATION PLANNING PRACTICES IN STATE DEPARTMENTS OF TRANSPORTATION



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Abstract

The Intermodal Surface Transportation Efficiency Act (ISTEA), and now its successor the Transportation Equity Act for the 21st Century (TEA-21), fundamentally altered the transportation planning process, providing new opportunities and new challenges for state and metropolitan planning organizations (MPOs). In Virginia, the Transportation Planning Division (TPD) of the Virginia Department of Transportation (VDOT) is the lead state agency for transportation planning. The TPD is charged with satisfying state and federal requirements for transportation planning, including ISTEA and TEA-21 requirements; however, it is assisted in the delivery of transportation planning services by various levels of activity and responsibility in VDOT's district offices.

There are numerous ways in which any given state department of transportation (DOT) can organize itself, allocate responsibility, manage personnel, and establish procedures and practices to perform tasks associated with the planning process. The purpose of this project was to survey the transportation planning practices of other state DOTs, document the findings, and identify practices that might be considered for use by VDOT. The practices investigated and discussed in the report include:

- organization and management of transportation planning
- coordination between the DOT and the MPOs
- public involvement procedures for transportation planning activities
- procedures for intermodal planning and congestion management
- use of consultants for transportation planning activities.

Thirty-eight DOTs responded to the survey. Summary findings are presented, a comparison of VDOT and other DOT practices is made, and potential practices to enhance transportation planning in Virginia are identified.

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(The opinions, findings, and conclusions expressed in this report are those of the authors and not necessarily those of the sponsoring agency.)

Virginia Transportation Research Council
(A Cooperative Organization Sponsored Jointly by the Virginia Department of Transportation and the University of Virginia)

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ABSTRACT

The Intermodal Surface Transportation Efficiency Act (ISTEA), and now its successor the Transportation Equity Act for the 21st Century (TEA-21), fundamentally altered the transportation planning process, providing new opportunities and new challenges for state and metropolitan planning organizations (MPOs). In Virginia, the Transportation Planning Division (TPD) of the Virginia Department of Transportation (VDOT) is the lead state agency for transportation planning. TPD is charged with satisfying state and federal requirements for transportation planning, including ISTEA and TEA-21 requirements; however, it is assisted in the delivery of transportation planning services by various levels of activity and responsibility in VDOT's district offices.

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INTRODUCTION

The Intermodal Surface Transportation Efficiency Act (ISTEA), and now its successor the Transportation Equity Act for the 21st Century (TEA-21), fundamentally altered the transportation planning process, providing new opportunities and new challenges for state and metropolitan planning organizations (MPOs). The new philosophies and new requirements promulgated by these acts have led many state departments of transportation (DOTs) to evaluate their planning practices and to consider new organizational structures and planning practices that meet the requirements of these acts and best serve the transportation planning needs of their state.

In Virginia, the Transportation Planning Division (TPD) of the Virginia Department of Transportation (VDOT) is the lead state agency for transportation planning and is charged with satisfying state and federal requirements. To fulfill these various requirements, TPD is organized into five area-specific sections dealing with planning per se and two statewide sections dealing with engineering, geographic information systems (GIS), and modeling.

The transportation planning sections maintain close relations with local, regional, state, and federal agencies concerned with transportation planning. They also administer the federal highway planning funds used by the localities. In cooperation with the transportation engineering section, they identify deficiencies and make recommendations for both short- and long-range transportation improvements. Specific responsibilities include:

- developing the system management, short-range, and long-range elements of an area's transportation plans
- developing the statewide plan and state transportation improvement program (STIP)
- conducting the highway needs assessment
- maintaining the state highway planning system (SHIP)
- developing traffic data for project location, design, signal, and environmental studies
- collecting, forecasting, and monitoring socioeconomic and land use data, and reviewing the data prepared by the planning district commissions and local jurisdictions

- coordinating bicycle and pedestrian activities
- monitoring high-occupancy vehicle (HOV) facilities
- integrating travel forecasting models with GIS data
- overseeing the air quality modeling process
- performing special studies as may be required by the Commonwealth Transportation Board
- preparing other transportation study reports.

The transportation engineering section develops functional or conceptual highway plans as needed for transportation studies, corridor studies, commuter parking lots, and bus/carpool facilities. It reviews and analyzes developers' site plans, proposed highway and bridge construction plans, and bikeway plans and recommends any needed changes in cooperation with the transportation planning sections. It determines highway needs and makes recommendations for improvements, including transportation system management projects, selected highway corridors, bridge structures, residual right-of-way parcels, and commuter parking lots. It prepares elements of urban and statewide transportation plans and, in cooperation with the transportation planning sections, recommends both short- and long-term transportation improvements. This section also processes the intergovernmental review documents for VDOT and outside agency projects.

VDOT also maintains varying planning capabilities in some of its districts. The Northern Virginia District has a planning section and a land development section that have major planning responsibilities and considerable staffing. Three districts—Culpeper, Fredericksburg, and Suffolk—have a district planner, and two districts—Salem and Lynchburg—share a district planner. District planners generally provide coordination between VDOT's Central Office Division and the local MPOs and other planning agencies and provide technical assistance, including, in some districts, site plan review. There are, however, no formal guidelines or statements of responsibility for these field planners. The remaining three districts—Staunton, Richmond, and Bristol—do not have any planning capability except that related to traffic engineering (e.g., site impacts and site plan review).

There are numerous other ways in which a state DOT can organize itself, allocate responsibility, manage personnel, and establish procedures and practices to perform tasks associated with the planning process. In view of recent changes in the planning process implemented in response to ISTEA and TEA-21, the researchers surveyed and documented the transportation planning practices in state DOTs.

PURPOSE AND SCOPE

The purpose of this project was to survey the transportation planning practices of state DOTs, document the findings, and identify practices that might be considered for use by VDOT by comparing VDOT's practices with those of other state DOTs.

Since a comprehensive survey of all the transportation planning practices in state DOTs would be time-consuming and difficult, the researchers held discussions with VDOT planners to narrow the scope. The final list included the following:

- organization and management of transportation planning
- coordination between the DOT and the MPOs
- public involvement procedures for transportation planning activities
- procedures for intermodal planning and congestion management
- use of consultants for transportation planning activities.

METHODOLOGY

The researchers developed a questionnaire that addressed the specific practices listed (see Appendix A). The questionnaire was mailed to members of the American Association of State Highway and Transportation Officials' Standing Committee on Planning. This committee, which is in charge of "developing and disseminating recent advances in the field of transportation planning," consists of high-level planning officials in each state DOT. In addition to the initial mailing, the researchers made a follow-up request to the committee members who had not responded.

The researchers documented the results of the surveys and then compared VDOT's responses with those of other states. Finally, based on this comparison, the researchers identified practices that might enhance transportation planning in Virginia.

RESULTS

Survey Results

Thirty-eight questionnaires, including one from VDOT, were returned. There are no obvious characteristics of the non-responding states (Alabama, Mississippi, New Mexico, Arizona, Kentucky, New Jersey, Louisiana, Delaware, Illinois, Missouri, Hawaii, and Alaska) that would suggest a non-response bias. Appendix B is a list of respondents and their address.

A more detailed discussion of the responses is provided in Appendix C. Verbatim responses from the questionnaire are contained in a bound packet of spreadsheets entitled "Survey: Transportation Planning Practices of State DOTs."[1]

General Information

A slight majority (22 of 38) of the responding DOTs are responsible for transportation planning in small urban areas of their state. Of the DOTs not responsible, several either provide

financial assistance or share data. The most common definition used by respondents associated small urban areas with a population between 5,000 and 50,000.

A slightly higher majority (24 of 38) is responsible for rural transportation planning. Many incorporate rural planning in the statewide planning efforts, and many consider only roadways in the state system. A number of DOTs provide financial or staff support to local or regional planning entities to assist in rural planning.

Organization and Management of Transportation Planning

A slight majority (20 of 38) of the responding DOTs are organized such that all planning is conducted in the central office; that is, essentially no planning is being done in field offices. The other 18 reported a combination of central office and field efforts.

For those DOTs having central office planning only, one division (or bureau) typically is responsible for planning activities, and sections within the division are responsible for planning for the various modes of transportation. Further, this division is at the third level of the DOT's organizational structure; that is, the head of the planning unit reports to someone who, in turn, reports directly to the DOT's chief executive officer (CEO). It is fairly common, however, to find other modal interests, especially aviation, in another state agency that is on a level equal with the DOT.

DOTs having a combination of central office and field planning can be categorized as follows:

Liaison only. Field offices are essentially responsible for liaison and coordination between MPOs or other local planning agencies and the DOT's central office planning group. There is generally no planning capability and expertise and, most likely, a staff commitment per field unit of no more than one person. Central office units are responsible for transportation planning within the state. The central office staff coordinates with the field office staff primarily for information sharing.

Liaison with technical assistance. In addition to liaison and coordination, field offices are responsible for technical assistance and minimal planning activities. Field staff have planning expertise and technical skills, with staff commitments per field unit typically ranging from one to two professionals with the same number of support staff. Central office units are still basically responsible for transportation planning within the state. There is considerable coordination between central office staff and field office staff.

Separated field and central office planning. Field offices and the central office have separate and distinct responsibilities. The term *decentralized planning* is sometimes used. The number of field professionals that have planning expertise and technical skills increases and the staff assumes some of the responsibility for transportation planning activities in the geographic area the office covers. On the other hand, the central office is responsible for statewide planning

and modal policy plans and may provide technical assistance and overall policy guidance to the field offices.

Major field office planning. Field offices have significant planning capability and expertise as well as major responsibility for transportation planning in the geographic areas they cover. Staffs are large; have professional planners, planning technicians, and administrative support; and occupy a high level in the field office's organizational structure. The field and office and central office have separate and distinct responsibilities, and decentralized planning is maximized. Typically, field offices carry on the day-to-day planning and operational activities and the central office provides, among other things, policy and goal direction, overall coordination and guidance, and possibly technical assistance and support.

Coordination Between DOT and MPOs

Twenty-four of the responding DOTs provide the primary liaison/coordination with the MPOs through their central office staff, 12 do so through their field offices, and 2 through both the central office and field offices.

A slight majority (20 of 38) of the responding DOTs have only central office staff representation on local MPO policy boards, 13 have only field office staff representation, and 4 have both central office and field office staff representation. In one state, a board of transportation member is assigned to the MPO board by the secretary of transportation.

Just under half (18 of 38) have only central office representation on local MPO technical committees, 11 have only field office staff representation, and 9 have both central office and field office staff representation.

DOT staff routinely communicates with MPO staff through meetings of numerous committees; staff conferences; newsletters; training workshops; and, often, daily communication via telephone calls, fax transmissions, and e-mails. A number of DOTs hold annual or semi-annual statewide conferences or meetings to discuss current issues.

Administration of Metropolitan Planning (PL) Funds

A majority (27 of 38) of responding DOTs handles all PL/MPO funding activities at the central office. PL funds are administered jointly by field offices and the central office in 3 states and by only field offices in 7 states. Three DOTs combine PL funds with Federal Transit Administration (FTA) metro planning funds (Section 5303 and 5313 funds) in a consolidated planning grant administered by FTA.

Essentially all DOTs require some form of annual scope of work (unified planning work program [UPWP], transportation planning work program, or overall work program) and either monthly or quarterly billings with status/progress reports.

Although not all respondents specifically addressed the allocation of PL funds, essentially all DOTs who did so apportion their PL funds using population as a single factor or one of several factors. The other most commonly used factor is air quality non-attainment status and severity. Some DOTs hold back a percentage of the total PL funds for contingency.

Public Involvement Procedures

A significant majority (30 or more of 38) of responding DOTs solicits public comment from the general public, local governments, other state agencies, and citizens groups. Only a slight majority (23 of 38) solicits input from local businesses.

Essentially all DOTs solicit public comment on the STIP and the long-range plan (LRP), a lesser majority (25 of 38) on major investment studies, just under half (18 of 38) on the constrained LRP, and only 8 on the unified planning work program.

A majority (32 and 33 of 38) of responding DOTs use public hearings and newspaper ads to obtain public input. A slight majority (21) also obtain input from surveys. Other common methods for obtaining public input include web sites, newsletters and flyers, public forums and informational meetings, open houses, and toll-free telephone numbers.

Essentially all responding DOTs inform the public of upcoming public meetings through newspaper ads; however, television and radio are not widely used. Other common means of notifying the public of upcoming meetings include mailouts or letters to known interested parties and stakeholders and news/press releases.

Every responding DOT schedules public meetings to begin in the early evening, generally between 5 P.M. and 8 P.M. A number of DOTs include some daytime hours, mostly starting in the early afternoon. For example, meetings for business groups are held during the day.

Responding DOTs most often schedule public meetings at hotels/motels, schools, government office buildings, and other community or public sites.

Attendance at public meetings held by responding DOTs varies widely, ranging from 0 to 500 depending on the project or issue. Meetings typically have low attendance.

A number of responding DOTs focus on the format of public meetings as the most effective aspect of the public involvement process. Informal open forum meetings, open houses, roundtable discussions, transportation fairs, or informational meetings are thought to be better than formal hearings because participants are thought to be more likely to provide input. Reaching out to the citizens by going to their "turf" is also thought to be important. Respondents thought the DOT should proactively seek out the public and stakeholders and involve them in the planning process since these methods allow a community influence over transportation plans and projects and foster a sense of ownership by the community.

The least effective aspect of the public involvement process noted by a number of the responding DOTs is that the public is often not interested in long-range plans that concern issues and projects 10 to 20 years in the future. The result is very low attendance at public meetings, and only those with special interests or those directly affected participate and provide input. Accordingly, it is difficult to reach a broad cross section of the public and to obtain a balanced point of view.

Intermodal Planning and Congestion Management Procedures

A majority (at least 30 of 38) of responding DOTs includes air, transit/public transportation, trucking, passenger and freight rail, bicycles, and pedestrians in addition to the automobile in their transportation planning efforts. Only 23 DOTs include water transportation.

Most responding DOTs incorporate intermodal planning within the long-range planning process and the intermodal management system (IMS) if one exists. Several DOTs develop plans separately for each mode and then make intermodal connections where possible. Some states retain a consultant for intermodal planning, and some undertake special studies of specific intermodal issues.

Exactly half of the responding DOTs have or are in the process of developing an IMS. The components of the IMS vary from state to state; however, common components include the identification and inventory of intermodal facilities and transportation systems and the development of performance measures.

The coordination established between modes is considered by a number of the responding DOTs as the most effective aspect of intermodal planning. Specifically, there is an opening of and/or improvement in communication among all agencies, parties, interests, modal providers, stakeholders, private and public sectors, etc., that are involved in the process.

The fact that many of the modes that must be considered in the process are in the private sector is considered by a number of the responding DOTs as the least effective aspect of the intermodal planning process. Frequent problems arise because the DOT lacks jurisdiction over these modes, lacks information and contacts in the private sector, and has difficulty obtaining information (much of which is proprietary). Further, the private sector often has neither the time nor the inclination to be involved in a systems level approach to planning and programming; rather, their interest is project specific. Finally, many of the needed improvement projects are not under the purview of the DOT.

Less than half of the responding DOTs have a statewide congestion management system (CMS), which was the focus of the survey question. Many CMS plans, however, are in place for specific MPOs. The components of the CMS vary from state to state; however, common components include the identification and inventory of congested corridors and links, the compilation of potential congestion reducing measures, and the development of data collection and performance monitoring procedures.

Use of Consultants in Transportation Planning

Essentially all responding DOTs retain consultants to conduct transportation planning studies or projects of some kind. Most DOTs use consultants to assist in corridor planning and major investment studies. More than half retain consultants to conduct statewide planning, and a few to conduct site-specific planning. Less than a third of the respondents retain consultants to undertake urbanized area and small urban area planning; however, only five use consultants for rural planning. Most of the DOTs hire consultants via the traditional request for proposal (RFP) process, and several have consultants on a retainer basis to undertake short-term or emergency transportation planning studies.

Comparison of VDOT's Transportation Planning Practices and Those of Other DOTs

General Information

VDOT assumes responsibility for transportation planning in both small urban and rural areas, as does the majority of those responding. The most common definition used by respondents associates *small urban areas* with a population between 5,000 and 50,000; however, VDOT defines *small urban areas* as having a population between 3,500 and 50,000. VDOT, like many respondents, incorporates rural planning within statewide planning efforts and provides either financial or staff support to local or regional planning entities as assistance for rural planning.

Organization and Management of Transportation Planning

VDOT's organizational structure as related to the delivery of transportation services is somewhat of a hybrid of those structures identified for other state DOTs. That is, the central office has different relationships with different district (field) offices, as described in the following:

The relationship with three of the districts (Richmond, Staunton, and Bristol) likens VDOT to a "central office only" planning structure as all planning activities reside within a single division (TPD) in the central office and sections therein have total responsibility for planning within the geographic boundaries of those districts. There is overlap, however, with the "liaison only" category of the combined central office and field structure. The districts assume some responsibility for liaison and coordination between MPOs or other local planning agencies and TPD, and TPD staff coordinates with the district staff via information sharing.

The relationship with five districts (Suffolk, Salem, Lynchburg, Fredericksburg, and Culpeper) likens VDOT to the "liaison with technical assistance" category of the combined central office and field structure. Each of these districts has a transportation planner who has planning expertise and skills and who performs many of the functions listed previously for this category.

Finally, the relationship with one district (Northern Virginia) most likens VDOT to the "major field office planning" category of the combined central office and field structure. Some characteristics, however, liken the district to the "separated field and central office planning" category. The district has significant planning capability and expertise as well as major responsibility for transportation planning in the geographic area it covers. The planning staff is large, has professional transportation planners and transportation planning technicians as well as administrative support, and occupies a high level in the district's organizational structure. District staff carries on the day-to-day planning and operational activities.

Coordination Between DOT and MPOs

With the exception of the Northern Virginia District, central office staff from VDOT's TPD provides the primary liaison/coordination with the MPOs by representing VDOT on the MPO Policy Board, MPO Technical Committee, and other committees of the MPO. This is consistent with the majority of the responding DOTs. Also typical is the fact that VDOT staff has periodic communication with the MPO staff through meetings of numerous committees; staff conferences; newsletters; training workshops; and daily, routine communication via telephone calls, fax transmissions, and e-mails.

Administration of PL Funds

VDOT is similar to the majority of responding DOTs in that PL funding activities are handled in the central office. Essentially all respondents, including VDOT, have similar reporting requirements, that is, some form of annual scope of work (UPWP, transportation planning work program, or overall work program) and either monthly or quarterly billings with status/progress reports. VDOT's method of apportioning PL funds is somewhat different than that used by other state DOTs; however, the rationale used is basically consistent with that of the other DOTs whose responses addressed the issue.

Public Involvement Procedures

VDOT, in parallel with the majority of respondents, solicits public comment from the general public, local government, local businesses, other state agencies, citizens groups, and citizens advisory committees established for specific projects.

VDOT solicits public comment for the STIP, major investment studies, constrained LRP, UPWP, LRP, and the statewide highway needs assessment report. Other state DOTs generally seek comments for these same documents; however, a lot fewer solicit comments on the constrained LRP and the UPWP.

VDOT, as well as most of the responding DOTs, uses public hearings, newspaper ads, and surveys in its public involvement procedures. VDOT also uses toll-free telephone numbers.

VDOT informs the public of upcoming public meetings through newspaper ads, radio announcements, its web site, newsletters, information booths, and information hotlines. Most of the other states use newspaper ads; however, television and radio are not widely used.

Every respondent, including VDOT, schedules its public meetings between 5 P.M. and 8 P.M.

VDOT uses hotels/motels, schools, government office buildings, and fire stations for its public meetings. This is in agreement with the majority of respondents.

VDOT averages 25 people in attendance at its public meetings on planning issues, which is within the range reported by other DOTs.

VDOT, as well as a number of the responding DOTs, suggests that the most important element of the public involvement process is the format of the meeting. There is general agreement that informal open forum meetings, open houses, roundtable discussions, transportation fairs, or informational meetings are better than formal hearings because participants are more likely to provide input.

VDOT suggests that the most negative aspect of the public involvement process is the fact that only critics and people directly affected tend to participate in the process. This sometimes allows a small minority to have excessive influence. Other DOTs echo this general theme by noting that the public is often not interested in long-range plans that concern issues and projects 10 to 20 years in the future.

Intermodal Planning and Congestion Management Procedures

VDOT includes the automobile, transit/public transportation, bicycles, passenger rail, and pedestrians in its intermodal planning; however, air, water, trucking, and freight rail are excluded. Most other respondents include all of these modes in their intermodal planning efforts, the only exception being water transportation.

Intermodal planning in Virginia is accomplished at the MPO level and is an important part of the planning process for the non-attainment areas. Most respondents incorporate intermodal planning within the state's long-range planning process and the IMS if one exists.

VDOT is like 50 percent of the respondents in that it does not have a statewide IMS.

VDOT, like most of the respondents, does not have a statewide CMS. As with many states, however, a CMS has been or is being developed by MPOs within the state.

Use of Consultants for Transportation Planning

VDOT and most of the responding DOTs retain consultants for transportation planning projects. Consultants are used in Virginia for urbanized area, small urban area, and corridor planning studies as well as major investment studies. Most respondents use consultants for corridor planning and major investment studies; however, unlike VDOT, relatively few use consultants for urbanized area and small urban area planning.

VDOT and most of the responding DOTs hire consultants via the traditional RFP process. Several states have an arrangement similar to VDOT's by having consultants on a retainer basis for short-term or emergency studies.

Transportation Planning Practices That Might Enhance Transportation Planning in Virginia

The identified practices reflect differences between VDOT's transportation planning practices and those of the other responding DOTs. Since the design and results of the survey did not allow for the evaluation of these differences, further research would be needed before specific practices were implemented.

Organization and Management of Transportation Planning

VDOT's organization and administration of transportation planning is a hybrid of those identified for other state DOTs; that is, the central office has different relationships with different district (field) offices. Other DOTs have a more consistent and uniform relationship between their central offices and field offices as discussed earlier.

A consistent and uniform relationship might benefit the delivery of transportation planning services in Virginia.

Coordination Between VDOT and MPOs

VDOT field office representation on MPO policy boards and technical committees may improve the coordination of transportation planning at the local level.

The publication of a newsletter or Internet web page that focuses on VDOT's transportation planning activities and issues of interest in the transportation planning arena might be an effective public relations tool and help maintain lines of communication between VDOT and the local planning community. The newsletter or web page address could be distributed statewide to MPOs, planning district commissions, and local government planning offices.

Administration of PL Funds

More field staff or district involvement in processing PL funds might expedite the process or make it less cumbersome for those processing the payments.

The implementation of the consolidated planning grant administered by FTA might result in greater efficiency in the administration of PL funds.

Additional MPO reporting requirements might benefit TPD's processing of PL funds. For example, would more details on expenditures facilitate processing?

A simplification of TPD's apportionment formulas for distributing PL funds might simplify and enhance the process.

Public Involvement Procedures

Solicitation of comments from the following groups might increase public participation:

- chambers of commerce
- local/regional transportation agencies
- league of cities and towns
- modal transportation stakeholders (e.g., trucking associations, railroads, seaports, shippers, airports, transit companies, trade groups)
- neighborhood/homeowners associations
- environmental groups (e.g., Sierra Club)
- highway user groups (e.g., Automobile Association of America).

Likewise, use of the following opportunities for public involvement increases participation:

- workshops
- focus groups
- Internet (via web site)
- state fairs
- newsletters and flyers
- public opinion surveys
- public forums
- public informational meetings
- public television shows
- door-to-door visits
- teleconferences
- videos
- citizen advisory councils
- transportation information networks

- telephone and mail surveys
- market research initiatives
- open houses
- public goals and objectives surveys
- letters
- petitions.

Sending letters of announcement about public meetings directly to known interested parties and stakeholders might result in additional participation. Local planners could help to identify these groups. Contacts of this nature would not only provide good public relations but could also increase participation at the meetings.

Holding public meetings during the day to attract business people might be beneficial. This would not only encourage attendance by the business community but also potentially increase attendance by making the meetings more convenient.

Likewise, holding public meetings at the following locations might be beneficial:

- community/public buildings in general
- teleconference/videoconference sites
- malls
- libraries
- churches.

Consideration of the most effective and least effective elements of the public involvement process noted by other DOTs might provide useful insights as to needed revisions in TPD's overall procedures (see Appendix C).

Intermodal Planning and Congestion Management Procedures

The incorporation of air, water, trucking, and freight rail in TPD's intermodal planning activities and procedures might enhance the intermodal cornerstone of ISTEA and TEA-21.

The development of a statewide IMS might improve intermodal planning in Virginia. The benefits reported by other DOTs that result from intermodal planning and an IMS outweigh the negative and ineffective elements (see Appendix C).

CONCLUSIONS

- The organization and management of transportation planning vary considerably among the state DOTs; however, general categories of structure can be identified. These categories relate to the relationship that exists between the DOT's central office planning and its field office planning.

- The coordination of transportation planning between the DOTs and the MPOs is generally similar. Minor variations are based on the organizational structure of the DOT.

- Public involvement procedures for transportation planning activities are similar overall; however, many variations exist when specifics are examined.

- Intermodal planning and congestion management vary among the DOTs; however, there is a general pattern that these activities are focused either at the state level or the local urbanized area level.

- The use of consultants for transportation planning activities is very similar among the DOTs. There are only slight variations in the types of studies undertaken.

- The delivery of transportation planning services by VDOT could possibly be enhanced by a more consistent relationship between the central office and field offices. Central office planning should be supplemented with planning expertise in each district. Generally, a district planner with minimal support staff would be sufficient. The exception to this is the Northern Virginia District where the level and magnitude of transportation requires much more extensive transportation planning capabilities. Additionally, it might be beneficial to identify and document the roles of the district planners and their relationship with the central office planning staff.

RECOMMENDATIONS

1. TPD should evaluate the need for district planning positions in the Bristol, Staunton, and Richmond districts. This would be especially valid in the Richmond and Bristol districts that have an MPO and multi-state MPO within their bounds. The Staunton District contains no MPO; however, there are a number of small urban areas for which transportation plans are developed. It is also assumed that TPD desires to continue in its lead role; therefore, the researchers do not recommend that VDOT go to a "major field office planning" statewide.

2. TPD should consider the formulation of definitive roles and responsibilities for district planners. This would include such issues as to whom planners should report, if planners should be the official members of the policy and/or technical committees, what the specific duties of planners should be, etc.

3. TPD should review the different transportation planning practices being used at other state DOTs that are reported herein and proceed with a plan of research to investigate further those practices that have potential for enhancing the transportation planning process in Virginia.

REFERENCE

1. Weichmann, T., and Arnold, E.D., Jr. *DATA, Survey, Transportation Planning Practices* of *State DOTs.* Virginia Transportation Research Council, Charlottesville, April 1998 (unpublished).

APPENDIX A

THE SURVEY QUESTIONNAIRE

[Attach Mailing Label Here]

SURVEY OF TRANSPORTATION PLANNING PRACTICES IN STATE DOTS

[Please complete if different from the label.]

Your Name: _____
Your Address: _____
_____
_____

Telephone No.: _____

General Information

1. How many urbanized areas/MPOs are in your state?

   ____ >200,000 population
   ____ 50,000 – 200,000 population

2. Is the state DOT responsible for transportation planning in small urban areas?

   ____ Yes ____ No

   If yes, how does the DOT define "small urban"?

   _____
   _____
   _____

   How many small urban areas are there? ____

3. Is the state DOT responsible for transportation planning in rural areas (counties, towns, etc.)?

   ____ Yes ____ No

   If yes, please describe the DOT's role and effort or attach documentation.

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

Organization and Administration of Transportation Planning

1. Please describe how the state DOT is organized to handle transportation planning in the state and highlight the function of each organizational unit. Please attach organizational charts with mission statements and work tasks if available.

2. How many field offices does the state DOT have outside the central office?_____

   How many of these field offices have transportation planning capabilities?

   ____ None ____ All ____ Some (How many? ____)

   Please describe the staffing committed to transportation planning in these field offices (number, professional vs. technical vs. secretarial, full time vs. part time, etc.). If this varies, please provide a range and an estimate of the "typical" staffing.

   Please describe the transportation planning activities undertaken in these field offices.

   Describe the relationship/coordination between the field office planning staff and the central office planning staff.

3. Please explain how PL funds are passed through the state DOT to the MPO. Include information about how and when (e.g., monthly invoices, quarterly invoices) the MPO expenditures are reimbursed and what type of documentation (e.g., progress reports, progress schedule) is required. Are these administrative activities handled at the central office, field offices, or both?

4. Who provides the primary liaison/coordination with the MPOs?

____ Central office planners/staff ____ Field office planners/staff

Please describe how this liaison/coordination is accomplished.

5. Who formally represents the state DOT on the MPO policy board?

____ Central office staff ____ Field or district staff

What is this individual's position or title? _____

6. Who formally represents the state DOT on the MPO technical committee?

____ Central office staff ____ Field or district staff ____ None

What is this individual's position or title?_____

7. Please describe what routine or periodic communication the state DOT has with the MPOs (e.g., meetings, newsletters, conferences, forums, seminars, training).

Public Involvement

1. From which groups/agencies does the state DOT specifically solicit comments?

____ General public ____ Local governments
____ Local businesses ____ State agencies
____ Citizen groups (Please list): _____
_____
____ Other (Please specify): _____

2. For which transportation planning elements does the state DOT solicit comments?

____ STIP ____ MIS ____ Constrained Long Range Plan
____ UPWP ____ Long Range Plan
____ Other (Please specify): _____

3. What kinds of public involvement procedures does the state DOT use?

____ Public hearings ____ Newspaper ads
____ Surveys (Please Describe):_____
____ Other (Please specify): _____

4. How does the state DOT inform the public about public meetings?

____ Newspaper ads ____ Television ____ Radio
____ Other (Please specify): _____

5. What hours of the day are the public meetings typically held?_____

6. Where are the public meetings typically held?_____

7. What is the average attendance at public meetings on planning issues?_____

8. In your opinion, what is the **most** effective aspect of the public involvement process undertaken by the state DOT? Why?

_____
_____
_____
_____

9. In your opinion, what is the **least** effective aspect of the public involvement process undertaken by the state DOT? Why?

_____
_____

Major Investment Studies

1. Please describe or attach documentation as to the criteria the state DOT has developed to determine when a Major Investment Study is needed.

2. Please describe or attach documentation as to how the state DOT defines the scope and level of detail of Major Investment Studies.

3. Please describe or attach documentation on any special procedures the state DOT has to obtain public input in the MIS process.

In your opinion, what is the **most** effective aspect of the Major Investment Study process undertaken by the state DOT? Why?

5. In your opinion, what is the **least** effective aspect of the Major Investment Study process undertaken by the state DOT? Why?

Intermodal Planning

1. What modes do the state DOT's transportation planning efforts include other than the automobile? Check all that apply.

____ None	____ Trucking	____ Rail (freight)
____ Air	____ Bicycles	____ Pedestrians
____ Transit/public transport	____ Rail (passenger)	____ Water

Please describe how the intermodal planning process is accomplished or attach documentation. Be sure to describe any models that are used in the intermodal planning process.

2. Does the state DOT have an Intermodal Management System?

____ Yes ____ No

If yes, please describe its major components or attach documentation.

3. In your opinion, what is the **most** effective aspect of the intermodal planning process undertaken by the state DOT? Why?

4. In your opinion, what is the **least** effective aspect of the intermodal planning process undertaken by the state DOT? Why?

5. Does the state DOT have a Congestion Management System?

____ Yes ____ No

If yes, please describe its major components or attach documentation.

Programming of Transportation Improvements

1. In Virginia, VDOT's Division of Programming and Scheduling is in charge of programming funds for transportation projects. The division does so by soliciting input from a wide variety of sources including the Statewide Transportation Plan developed by state transportation planners. Please describe how the state DOT programs transportation projects or attach documentation. Please discuss or include information about who makes the decisions, what criteria are used, and how the planning process influences what transportation projects are programmed.

2. Does the state DOT use performance measures when making transportation funding decisions?

____ Yes ____ No

If yes, does the DOT consider the use of performance measures in programming to be:

____ Very important ____ Somewhat important ____ Not important

Please describe these measures or attach documentation. (If you have already discussed them, please so note, or elaborate if necessary.)

Use of Consultants

1. Does the state DOT employ consultants to undertake any elements of the transportation planning process?

____ Yes ____ No

If yes, which elements?

____ Statewide planning
____ Urbanized area planning
____ Corridor planning
____ MIS
____ Rural area planning
____ Small urban area planning
____ Specific site planning
____ Other (Please describe):_____

_____

2. Are these consultants hired via the traditional RFP process for each specific job?

____ Yes ____ No ____ Not applicable

If no, please describe the process or attach documentation.

_____
_____
_____
_____

3. Does the state DOT have a consultant on a retainer basis to undertake short-term or emergency transportation planning studies?

____ Yes ____ No

If yes, please describe the arrangement or attach documentation.

_____
_____
_____
_____
_____
_____
_____

THANK YOU VERY MUCH FOR YOUR TIME!

Please return the survey and supporting documentation by Friday, September 12, to:

E. D. Arnold, Jr.
Virginia Transportation Research Council
530 Edgemont Road
Charlottesville, VA 22903

APPENDIX B

SURVEY RESPONDENTS

Arkansas State Highway and
Transportation Department
Planning and Research
P.O. Box 2261
Little Rock, Arkansas 72203-2261

CALTRANS
Transportation Planning Program
MS 32
1120 N. Street
Sacramento, California 95814

Colorado Department of Transportation
Division of Transportation Development
4201 East Arkansas Avenue
Denver, Colorado 80222

Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, Connecticut 06131-7546

Florida Department of Transportation
605 Suwannee Street, Tallahassee
Florida 32399-0450

Georgia Department of Transportation
Transportation Planning &Programming
2 Capital Square
Atlanta Georgia 30334

Idaho Transportation Department
Transportation Planning and Programming
P.O. Box 7129, 3311 W. State Street
Boise, Idaho 83707-1129

Indiana Department of Transportation
Division of Transportation Planning
100 N. Senate Avenue, Room N901
Indianapolis, Indiana 46204-2249

Iowa Department of Transportation
Office of Planning Services
800 Lincoln Way
Ames, Iowa 50010
Kansas Department of Transportation
Planning and Development
Docking State Office Building, 8th Floor
Topeka, Kansas 66612

Maryland Department of Transportation
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Massachusetts Highway Department
Office of Transportation and Construction
10 Park Plaza, Room 3710
Boston, Massachusetts 02116-3869

Michigan Department of Transportation
Bureau of Transportation Planning
425 W. Ottawa, P.O. Box 30050
Lansing, Michigan 48909

Nebraska Department of Roads
Transportation Planning
P.O. Box 94759
Lincoln, Nebraska 68509-4759

New Hampshire Department of Transportation
Bureau of Transportation Planning
P.O. Box 483
Concord NH 03302-0483

Nevada Department of Transportation
Transportation Planning
1263 S. Stewart Street
Carson City, Nevada 89712

New York Department of Transportation
Planning and Programming
Building 5, State Office Campus
Albany, New York 12232

North Carolina Department of Transportation
Planning and Programs
P.O. Box 25201
Raleigh, North Carolina 27611

Maine Department of Transportation
Planning Division
State House Station 16
Augusta, Maine 04333

Minnesota Department of Transportation
MS 140
Division of Transportation Research Investment
395 John Ireland Boulevard
St. Paul Minnesota 55155

Montana Department of Transportation
Rail and Transit Division
2701 Prospect Avenue
Helena, Montana 59620

North Dakota Department of Transportation
Planning and Programming
608 East Boulevard Avenue
Bismarck, North Dakota 58505-0700

Ohio Department of Transportation
Transportation Assistance
25 South Front Street, Room 706
Columbus, Ohio 43216-0899

Oklahoma Department of Transportation
Planning Division
200 N.E. 21st Street
Oklahoma, Oklahoma 73105-3204

Oregon Department of Transportation
Planning Section
555 13th Street N.E.
Salem, Oregon 97310

Pennsylvania Department of Transportation
9th Floor, Forum Place
555 Walnut Street
Harrisburg, Pennsylvania 17101-1900

Rhode Island Department of Transportation
Division of Intermodal Planning
Two Capitol Hill
Providence, Rhode Island 02903-1124

South Carolina Department of Transportation
Planning
P.O. Box 191
South Carolina 29202

South Dakota Department of Transportation
Planning and Programming
700 E. Broadway
Becker-Hanson Building
Pierre, South Dakota 57501-2586

Tennessee Department of Transportation
Planning
Suite 900, James K. Polk Building
Nashville, Tennessee 37243-0334

Texas Department of Transportation
Planning and Programming
P.O. Box 149217
Austin, Texas 78714-9217

Utah Department of Transportation
Planning
4501 South 2700 West
Salt Lake City, Utah 84119-5998

Vermont Department of Transportation
Policy and Planning
133 State Street, Administration Building
Montpelier, Vermont 05633-5001

Washington State Department of Transportation
Planning and Programming
Transportation Building
PO Box 47370
Olympia, Washington 98505-7370

Virginia Department of Transportation
Transportation Planning
1401 East Broad Street
Richmond, Virginia 23219

West Virginia Department of Transportation
Division of Highways, Planning and Research
1900 Kanawha Boulevard E., Bldg. 5
Charleston, West Virginia 25305-0438

Wisconsin Department of Transportation
Division of Planning and Budget, Rm 901
P.O. Box 7913
Madison, Wisconsin 53707-7913

Wyoming Department of Transportation
P.O. Box 1708
Cheyenne, Wyoming 82003-1708

APPENDIX C

SURVEY FINDINGS

SURVEY FINDINGS

Following are findings from sections of the questionnaire that concern the DOTs' organization and management, coordination between DOTs and MPOs, public involvement procedures, intermodal planning and congestion management, and use of consultants. The headings correspond to the sections and specific questions in the questionnaire. Discussion of each topic generally begins with the response from VDOT in order to document the organization and management of the transportation planning process as it currently exists in Virginia.

Complete responses from the questionnaire are contained in a bound packet of spreadsheets entitled "Survey: Transportation Planning Practices of State DOTs."[1] Note that the responses to the questions on the relationship between planning and programming and major investment studies are contained in this document.

General Information

How many urbanized areas/MPOs are in your state?

Virginia has 11 MPOs, 8 with populations between 50,000 and 200,000 and 3 with populations over 200,000. The 38 responding DOTs (including VDOT) are responsible for a total of 322 urbanized areas, 118 of which have populations greater than 200,000. This excludes Rhode Island, for which one MPO covers the entire state.

Is the state DOT responsible for transportation planning in small urban areas?

VDOT assumes responsibility for planning in small urban areas with populations between 3,500 and 50,000. Twenty-one other state DOTs are responsible for transportation planning in small urban areas in their state. Again, this excludes Rhode Island, for which one MPO covers the entire state. Two others, Florida and South Dakota, are responsible for transportation planning only on the state highway system within these small areas. Oregon works on planning with all cities regardless of size and Arkansas is responsible for transportation planning throughout the state. The North Dakota DOT, one of the states not responsible for planning in small urban areas, provides financial assistance on an 80/20 matching basis. Although not requiring small urban areas to undertake transportation planning activities, Kansas conducts traffic forecasts for projects on or connecting to the state highway system.

How does the DOT define "small urban"?

VDOT defines *small urban areas* as those having a population between 3,500 and 50,000. The most common definition used by respondents associates *small urban* with a population between 5,000 and 50,000. West Virginia defines *small urban* as having a population between 20,000 and 50,000, and in Pennsylvania and Georgia, *small urban* applies only to those areas that are expected to reach the 50,000 population plateau in a very few years.

How many small urban areas are there?

Virginia has 48 small urban areas. The reported number in other states ranges from 1 to 500±, depending on the definition used by the DOT.

Is the state DOT responsible for transportation planning in rural areas?

VDOT's TPD conducts a statewide highway needs assessment every 5 years and provides grant monies to planning district commissions every year for local rural planning studies. Twenty-three other responding states are also responsible for rural transportation planning. As is the case in Virginia, many states incorporate rural planning within the statewide planning efforts and many only consider roadways on the state system. A number of DOTs provide either financial or staff support to local or regional planning entities as assistance for rural planning.

Organization and Administration of Transportation Planning

Describe how the state DOT is organized to handle transportation planning in the state, including as appropriate details on the operation and staffing of planning in field offices.

Twenty of the 38 responding DOTs reported that all planning activities are conducted in a central office; that is, there is essentially no planning being done in field offices. The other 18, including VDOT, reported a combination of central office and field efforts. Following is discussion of how each is organized to handle transportation planning in the state.

Central Office Planning

In the case of these 20 DOTs, all planning activities seem to reside within a single division or bureau, and sections within have responsibility for the planning for various modes of transportation. In some cases, however, planning is separated by mode at a higher level of organization. For example, the Maryland DOT (MDOT) is composed of six modal administrations and each has a planning office. In this case there is a separate planning office in MDOT headquarters that coordinates with the modal administrations on statewide planning efforts. In Maine, planning is split among three units: the Office of Passenger Transportation, the Office of Freight Transportation, and the Bureau of Planning. Responsibility for statewide multimodal transportation planning resides in the last. South Dakota DOT's Office of Planning and Programming is responsible for MPO planning and statewide planning/STIP development; planning for aviation and public transit is conducted by the Division of Fiscal and Public Assistance. A number of states have an aviation or aeronautics agency that is on equal level with the DOT and, although often not clear from the information provided in the survey, these agencies may also be involved with planning.

In these cases, this single division or bureau is typically located in the third tier or level of the DOT's organizational structure. That is, the head of the planning unit reports to someone who in turn reports directly to the DOT's CEO, typically a commissioner, secretary, or director

by title. For example, in Virginia, the state transportation planning engineer reports to the assistant commissioner for planning, research, and technology, who in turns reports to VDOT's commissioner.

Combined Central Office and Field Planning

The 18 DOTs that reported having transportation planning capabilities in their field offices can be separated into four general categories:

Category A – Liaison Only. In this organizational arrangement, the field responsibility is essentially one of liaison and coordination between MPOs or other local planning agencies and the DOT's central office planning group. The central office unit is responsible for transportation planning within the state. There is generally no planning capability and expertise, and most likely a staff commitment per field unit of no more than one person. This person typically has no direct chain of command link to the central office and has such duties as:

- attending all MPO meetings to provide project status information
- providing assistance in the STIP development process
- providing local liaison with cities and towns on construction projects to ensure that such projects are in the TIP, have gone through the public input process, etc.
- serving as the primary point of contact for local citizens.

The central office staff coordinates with the field office staff primarily for information sharing.

Category B – Liaison with Technical Assistance. In this organizational arrangement, technical assistance and minimum planning activities are included in the field's responsibility in addition to the liaison and coordination role described in Category A. The central office unit has the primary responsibility for transportation planning within the state. Field personnel have planning expertise and technical skills, with staff commitments per field unit typically ranging from one to two professionals with the same number of support staff. These professionals may or may not have a direct chain of command link to the central office and have such duties as:

- analyzing and reviewing existing and future land use projections, growth patterns, economic development trends, tourism, and demographics in order to identify future demand for transportation services
- developing access management policies and standards
- developing corridor management policies
- coordinating input for modal transportation plans
- considering innovative transportation technologies and strategies
- coordinating public involvement
- coordinating the development of projects for inclusion in the STIP
- monitoring and coordinating MPO/state planning activities
- reviewing and analyzing site development plans, traffic impact statements, and proposed highway plans

- providing liaison between the field office and the planning staffs of local governments.

There is considerable coordination between central office staff and field office staff.

Category C – Separated Field and Central Office Planning. In this organizational arrangement, the field and central office are beginning to take on separate and distinct responsibilities. The term *decentralized planning* is applicable. The number of field professionals that have planning expertise and technical skills is increased, they do not report to the central office, and they have such duties as:

- project and corridor planning
- NEPA certification
- TIP development assistance
- coordination with transportation planning regions
- development of long-range plans
- MIS corridor studies
- project development studies
- membership on various statewide task forces.

On the other hand, the central office is responsible for statewide planning and modal policy plans and may provide technical assistance and overall policy guidance to the field offices.

The Pennsylvania DOT is somewhat of a hybrid member of this category. Statewide and local planning are separate; however, PennDOT is unique among the respondents in that it described field and central office planners as a "coordinated team on all transportation planning and programming matters." It was noted further that "PennDOT's Office of Planning staff and the District Office staff participate in all metropolitan and rural transportation planning and programming activities at both the technical and policy levels."

Category D – Major Field Office Planning. In these state DOTs, the field offices have significant planning capability and expertise as well as major responsibility for transportation planning in the geographic areas they cover.

Staffs are large, have both professional planners and planning technicians as well as administrative support, and occupy a high level in the field office's organizational structure. For example, although the numbers vary, each district office in the Florida DOT has an average of 20 full-time professional positions, two or three full-time secretarial positions, and some consultant staff. The head of the office reports directly to the district directors of planning and programming. In New York, staff size ranges from 15 to 40, with an average in the low 20s. Most are professionals with about 10 percent secretarial and 15 percent technical support.

Field and central office have separate and distinct responsibilities and decentralized planning is maximized. Typically, field offices carry on the day-to-day planning and operational activities. Specifically, reported activities of field offices include:

- noise analysis
- corridor planning
- access management
- data collection activities
- major investment studies
- special transportation studies
- estimations of regional needs
- travel forecasting and modeling
- liaison with state planning work
- transportation enhancement projects
- administration of state and federal grants
- environmental coordination and oversight
- review of regional impacts of developments
- local project coordination/TIP amendments
- development and maintenance of the capital program
- participation in local comprehensive plan amendments
- transportation system and air quality conformity assistance
- participation with and representing the DOT in all MPO activities
- participation in the development of local and regional transportation system plans.

Reported activities of central offices include:

- training
- policy and goal direction
- quality assurance reviews
- overall coordination and guidance
- communication link between the field and the FHWA
- communication link between the field and upper level dot management
- administrative assistance, e.g., billing, consultant selection, grant processing
- program coordination in the areas of corridor planning and growth management
- technical assistance/support, e.g., transportation analysis, modal expertise, land use planning.

Explain how PL funds are passed through the state DOT to the MPO.

VDOT, as well as 26 other responding DOTs, reported that PL/MPO funding activities are handled at the central office. In VDOT's case, the Transportation Planning Division administers and processes the PL funds. Seven DOTs reported that the administration of PL funds is done in their field offices, although the actual payments are processed in the central office. In three states, PL funds are jointly administered by the central office and field offices. In Iowa, North Dakota, and Ohio, PL funds are consolidated with FTA metro planning funds (Section 5303 and 5313 funds) in a consolidated planning grant administered by FTA. This procedure may be used in other states but not reported.

In Virginia, each MPO is required to develop an annual scope of work that is approved by VDOT and FHWA. Progress reports are required when MPOs seek reimbursement for expenditures on projects within their scope of work. Invoices may be submitted monthly or quarterly. Essentially all respondents reported very similar requirements, that is, some form of annual scope of work (UPWP, transportation planning work program, or overall work program) and either monthly or quarterly billings with status/progress reports. Some state DOTs mentioned itemized attachments or expenditure backup sheets to the invoices that included items such as salary, fringe benefits, travel, equipment purchased, computer and reproduction, contractual, auditing services, telephone calls, and indirect charges. A couple of respondents reported the requirement of an annual final performance and expenditure report. Other miscellaneous documents reported as requirements include a cost allocation plan, work authorization from the DOT, and an authorization from the MPO policy committee chairperson that the work has been satisfactorily completed. It may be that most DOTs require these additional documents but simply did not list them in their response.

Virginia's PL funds are apportioned to its various MPOs based on urbanized area population and whether the area is classified as non-attainment for air quality purposes. As a first cut of the apportionment, serious non-attainment areas receive $20,000 for air quality planning, moderate areas receive $15,000, and marginal areas receive $10,000. If the non-attainment area consists of jurisdictions from more than one metropolitan area, each area receives a minimum of $5,000. Each MPO then receives a base amount of $32,000, which, in the case of multi-state urbanized areas, is reduced by the percentage of the population in Virginia to the total population of the urbanized area. The remaining PL funds are then distributed to the areas based on the percentage of each area's urbanized population to the state's total urbanized area population. There is a minimum of $32,000 apportioned to each area.

Not all respondents specifically addressed the allocation of PL funds. Some simply noted the use of an approved (by the state, MPOs, or FHWA) distribution formula or factors. Others simply noted the use of a population-based formula without providing any details. Still others noted the use of a population-based formula that also considers air quality non-attainment status and severity. Finally, one respondent reported the use of four variables: base, population, air quality, and planning needs. Specific responses included the following distribution methods:

- state PL funds times the ratio of 1990 urbanized area population divided by statewide urbanized area population
- one-half of state PL funds distributed equally to all areas and one-half distributed based on urbanized area populations in the most recent U.S. census
- base amount of $30,000 with balance distributed based on urbanized area population
- state PL funds allocated to each MPO using a formula of two-thirds population and one-third special needs
- eighty percent of state PL funds equally split between MPOs, remaining 20 percent retained for statewide planning
- fifteen percent of state PL funds withheld for contingency use by MPOs, 85 percent balance distributed using a base amount of $50,000 with remainder distributed based on each MPO's portion of the state's total urbanized area population

- base amount plus population-based distribution with some monies withheld for 10 percent local share if an MPO cannot meet its obligation, special studies, and rural transportation planning.

Who provides the primary liaison/coordination with the MPOs?

In Virginia (with the exception of one district office), central office staff from VDOT's TPD provides the primary liaison/coordination with the MPOs as representatives on the MPO Policy Board, MPO Technical Committee, and other committees of the MPO. Twenty-three other state DOTs provide the primary liaison/coordination through their central offices, and 12 do so through their field offices. Two states claim primary liaison/coordination through both the central office and field offices. The responding states provide this liaison/coordination through various activities, including the following:

- attendance and participation at MPO policy and technical meetings
- provision of technical assistance and support
- participation in the public involvement hearings, forums, meetings, etc.
- regular communication through telephone calls, fax messages, e-mails, mail correspondence, and personal meetings and visits
- participation in joint planning activities and partnerships in regional transportation planning activities.

Who formally represents the state DOT on the MPO policy board?

Virginia (with the one exception noted) joins 19 other state DOTs in having central office staff only representing VDOT on the local MPO policy board. Either the state transportation planning engineer (division administrator) or one of his section heads serves as the VDOT representative. Thirteen DOTs have field or district staff only as representatives on the MPO policy board, and 4 states have both central office and field/district staff as representatives. In North Carolina, the board of transportation member is appointed by the governor and assigned to the MPO board by the secretary of transportation.

Who formally represents the state DOT on the MPO technical committee?

VDOT is represented on the MPO technical committee by an engineer senior from the central office (again with the one exception noted). It is noted, however, that district planners often actively participate on technical committees. Seventeen other states have only central office representation, and 11 states are represented by DOT field/district staff only. Nine states have both central office and field/district staff representation.

Describe routine or periodic communication the state DOT has with the MPOs.

VDOT staff has periodic communication with the MPO staff through meetings of numerous committees, staff conferences, newsletters, and training workshops. Additionally, as with all DOTs, there is daily, routine communication between DOT and MPO staff via telephone calls, fax transmissions, and e-mails. There is often DOT participation in MPO corridor studies

and MISs. Like VDOT, many DOTs hold annual or semi-annual statewide conferences or meetings to discuss current issues. In Arkansas, there is an association of MPOs that meets annually. A number of DOTs and MPOs publish newsletters. Several states host National Highway or Transit Institute training courses, some using extra PL funds. In a few states, the state planning engineer (or similarly titled person) attends all local meetings of the advisory and policy committees. In the Ohio DOT, district MPO liaisons have office space in the MPO office, which potentially provides for maximum communication and interaction between the state and MPO.

Public Involvement

From which groups/agencies does the state DOT specifically solicit comments?

VDOT solicits public comment from the general public, local governments, local businesses, other state agencies, and citizens groups as well as citizens advisory committees established for specific projects. Specific groups include the Virginia Municipal League, the Virginia Association of Counties, and the Virginia Association of Planning District Commissions. Comments are solicited from these same general groups by the majority of the respondents; however, comments from local businesses are sought much less frequently than the others. Other groups listed include :

- local chambers of commerce
- local/regional transportation agencies
- League of Cities and Towns
- modal transportation stakeholders (e.g., trucking associations, railroads, seaports, shippers, airports, transit companies, trade groups)
- neighborhood/homeowners associations
- environmental groups (e.g., Sierra Club)
- highway user groups (e.g., Automobile Association of America)
- Native American tribes.

For which transportation planning elements does the state DOT solicit comments?

VDOT solicits public comment for the STIP, major investment studies, constrained LRP, UPWP, and LRP as well as the statewide highway needs assessment report. Most state DOTs seek comments for these same documents; however, only a few solicit comments on the constrained LRP and the UPWP. Other specific planning documents or elements listed for which public comment is sought include the following:

- short-range component of the statewide plan
- modal elements of the statewide plan
- corridor studies
- project plans
- public involvement plans/procedures.

What kinds of public involvement procedures does the state DOT use?

VDOT uses public hearings, newspaper ads, toll-free telephone numbers, and surveys in its public involvement procedures. Other states also regularly use the first two; however, surveys are used somewhat less. Other avenues reported include the following:

- workshops
- focus groups
- Internet (via web site)
- state fairs
- newsletters and flyers
- public opinion surveys
- public forums
- public information meetings
- public television shows
- door-to-door visits
- teleconferences
- videos
- citizen advisory councils
- transportation information networks
- telephone and mail surveys
- market research initiatives
- open houses
- public goals and objectives surveys
- letters
- petitions.

How does the state DOT inform the public about public meetings?

VDOT informs the public of upcoming public meetings through newspaper ads, radio announcements, its Internet web site, newsletters, information booths, and information hotlines. Most of the other states use newspaper ads; however, television and radio are not widely used. Other means used to advise of meetings include the following:

- mailouts/letters to known interested parties and stakeholders
- news/press releases
- flyers
- public service announcements.

What hours of the day are the public meetings typically held?

VDOT typically schedules its public meetings between 5 P.M. and 8 P.M. Every respondent reported a time period that includes this early evening time slot. Some of the meetings end later than 8 P.M. A number of states reported that its meetings include some

daytime hours, mostly starting in the early afternoon, often depending on the audience. For example, meetings for business groups are held during the day.

Where are the public meetings typically held?

VDOT uses hotels/motels, schools, government office buildings, and fire stations for its public meetings. Locations reported by other states include the following:

- community/public buildings in general
- teleconference/videoconference sites
- malls
- libraries
- churches.

What is the average attendance at public meetings on planning issues?

VDOT reported an average attendance of 25 people. The numbers reported vary widely, ranging from 0 to 500, with attendance generally cited as being low.

What is the most effective aspect of the public involvement process undertaken by the state DOT and why?

VDOT suggested that the most effective aspect of the public involvement process undertaken is the format of the meeting. It should be flexible enough to allow each project to be tailored to a specific area's or region's unique needs, thus encouraging those attending to leave comments. The format theme was echoed by a number of respondents. Several noted that informal open forum meetings, open houses, roundtable discussions, transportation fairs, or informational meetings are better than formal hearings because participants are more likely to provide input. This format allows participants to speak from the audience surrounded by his or her neighbors and supporters. The elimination of the podium and microphone setup in the front of the meeting place relaxes the atmosphere, and the meetings are less threatening and intimidating. It is also essential to reach out to the citizens by going out to their turf. This means going to where the people are, e.g., fairs, shopping malls, schools, and libraries. It is also important to proactively seek out the public and stakeholders to involve them in the planning process. This might mean working with identified interest groups such as environmental groups and neighborhood associations. It might also mean establishing citizens advisory groups for specific studies or creating local transportation information or advisory networks and working closely with community leaders before decisions are made. These methods allow a community influence over transportation plans and projects and foster a sense of ownership by the community. Another effective tool is to hold public meetings sponsored by local groups. With local officials in the lead, citizens are more likely to be involved than when bureaucrats from out of town try to be the lead. All these aspects of public involvement result in "vesting" the public in the future of their transportation system.

Other effective aspects mentioned include conducting interactive meetings at multiple sites over the state's fiber optic network and direct mailing lists. Another respondent suggested

that a combination of newsletter, web site, toll free numbers, and telephone surveys produces the most constructive input. Finally, PennDOT is making use of a flexible performance evaluation system that uses performance benchmarks as standards of excellence against which to judge the effectiveness of their public involvement programs.

What is the least effective aspect of the public involvement process undertaken by the state DOT and why?

VDOT noted that the least effective aspect of the public involvement process is the fact that much of the time only critics and people directly impacted participate in the process; i.e., there is a "noisy minority and silent majority." This sometimes allows a small minority to have excessive influence. This general "theme" was also echoed by a number of other respondents. That is, the public is often not interested in long range plans that concern issues and projects 10 to 20 years in the future, and there is often a very low turnout for these meetings. Only those with special interests or who are opposed to specific projects tend to provide input. Accordingly, it is difficult to reach a broad cross section of the public and to obtain a balanced point of view, especially from average citizens.

Other specific ineffective and negative aspects of the public involvement process include:

- The process is not cost-effective given the staff requirements and travel time necessary to hold what are often poorly attended meetings.
- Feedback surveys are the least effective because questions must be carefully worded to receive the desired responses.
- Public hearings in government buildings typically have low attendance.
- Formal public hearings and presentations that do not allow for questions and interaction result in minimum input from the public.
- Distribution of the STIP to libraries, city/county offices, etc., is not useful.
- Publishing legal notices for public involvement meetings is not effective as few people take the time to read the information.
- Meetings on the STIP are ineffective in obtaining feedback from seniors, those with handicaps, minorities, etc.
- Modern communication techniques, e.g., Internet, e-mail, electronic focus group activities, are not being used effectively, often because state DOTs do not have funding or are unwilling to spend the funds to acquire the necessary equipment.
- Public meetings in rural areas are especially difficult because there are often no local organizations (e.g., MPOs) to promote, organize, and otherwise facilitate such a meeting.

Intermodal Planning and Congestion Management

What modes do the state DOT's transportation planning efforts include other than the automobile?

In addition to the automobile, VDOT includes transit, bicycles, passenger rail, and pedestrians in its intermodal planning. It does not include air, water, trucking, and freight rail.

With the exception of water transportation, most DOTs include all of these modes in their intermodal planning efforts.

Describe how the intermodal planning process is accomplished.

VDOT reported that intermodal planning is accomplished at the MPO level. Most state DOTs reported that the intermodal planning process was accomplished within the long-range planning process and the IMS, if one existed. A few states noted special studies of specific intermodal issues. Some states retain a consultant for intermodal planning. Several states noted that multimodal plans were developed separately for each mode and then intermodal connections made where possible. Several states mentioned statewide groups or committees that coordinated intermodal planning. For example, Massachusetts has a freight advisory council and an interagency intermodal working group. New Hampshire noted that representatives from various modes sit on the MPO technical and policy committees.

Examples of specific planning procedures are:

Connecticut

- identification of facilities
- evaluation of their transportation connections
- evaluation of operations
- identification of improvements.

Michigan

- document physical inventory and usage
- identify performance measures and standards
- determine deficiencies
- determine solutions
- implement fixes
- analyze results.

Does the state DOT have an Intermodal Management System (IMS)?

VDOT, like 18 other responding DOTs, does not have an IMS. Nineteen reported having an IMS.

Describe the major components of the IMS.

The 19 DOTs that reported having an IMS were in various stages of producing their system. Some provided a copy of their final IMS, and components of several of these follow:

Arkansas

- multimodal database on the state's freight and passenger modes

- intermodal efficiency measures and performance standards
- data collecting and system monitoring.

California

CALTRANS developed the Intermodal Transportation Management System (ITMS) software that provides an interactive, intermodal and multimodal, quick response transportation planning analysis tool for use in system planning. It contains:

- all modes of transportation
- major transportation systems and intermodal facilities
- passenger and freight data
- existing and forecast conditions
- passenger mode-shift model
- performance measures
- census data
- local, state, national, and international spatial coverage.

Connecticut

- goals, objectives, and performance measures
- establishment of the IMS process
- classification of the intermodal system
- profiles of selected passenger and freight intermodal hubs
- analysis of individual modal components and service characteristics
- issues concerning intermodal development
- analysis of selected improvement alternatives
- statewide transportation policy recommendations.

Indiana

- facility network of statewide significance
- IMS development and user interface (GIS)
- performance measures
- deficiency analysis
- freight flows and assignments
- action and strategy recommendations.

Iowa

- identification of the most heavily used intermodal facilities throughout the state (airports, park and ride lots, bus transfer points, barge facilities, TOFC/COFC terminals, pipeline terminals, AMTRAK stations, grain elevator with rail service)
- survey of the users and operators of those facilities
- development of performance measures for use in prioritizing projects

- funding of improvements
- monitoring of results to determine benefits of improvements.

Michigan

The IMS is a computer-based inventory management and analysis tool that divides intermodal resources into the following categories:

- facilities (sites specifically intended to provide for the transfer of people and/or goods from one segment of the transportation system to another, e.g., airports, border crossings, car pool parking lots, intercity bus and/or rail stations, marine ports, pipeline terminals, rail freight stations, rail-truck transfer facilities, truck weigh stations)
- segments (modal connections by which people and/or goods are moved between intermodal facilities and other points)
- services (scheduled movements of groups of people over the transportation system between intermodal facilities).

Montana

- identification of intermodal facilities and transportation systems
- identification of performance measures
- data collection and system monitoring
- evaluation of system and facility efficiency.

Oregon

- review public comments from other planning efforts (gather comments from stakeholders)
- interview existing stakeholders
- design prioritization system (identify and rank needs)
- establish performance measures and thresholds
- develop needs ranking methodology (spreadsheet model)
- develop data and resource requirements for IMS data collection
- develop IMS database and computer program.

Pennsylvania

- develop organizational structure
- identify intermodal facilities
- develop automated intermodal facilities inventory system (linked to GIS)
- establish process to collect data and identify needs
- provide technical assistance to local planning agencies and specific PennDOT staff
- publicize IMS initiatives
- integrate IMS into the planning process.

What is the most effective aspect of the intermodal planning process undertaken by the state DOT and why?

The aspect of intermodal planning process that was cited over and over as being the most important was the value of the coordination established between modes. The following comments exemplify responses on this issue:

- opening of communication with other agencies
- coordination among all parties and interests
- improvement of communication between public and private sectors
- the bringing together of different modal providers
- providing for awareness of other modes
- establishment of partnerships with the various modes
- communication where planners gain a better understanding of shippers and shippers gain a better understanding of how state transportation investment policies are established.
- effectiveness in bringing together stakeholders to elicit responses on key issues and working toward mutually agreeable recommendations for implementation
- recognition of the relationship of each mode of transportation in providing a seamless transportation system and developing plans that provide those linkages.

Other important aspects of the intermodal planning process include the following:

- emphasizing economic development and transportation shipping choices
- ensuring a balanced and cost-effective approach in maintaining a transportation system
- evaluating modal connections
- identifying needed bike/pedestrian facilities
- identifying and inventorying intermodal facilities of state significance and identifying deficiencies and needs of those facilities
- documenting the diversion from highway, automobile, and truck to other modes when modal improvements are made.

The Michigan DOT summed up its most important aspects as follows:

- Inclusion and equal treatment of all public use facilities, segments, and services, regardless of size or perceived importance, leads to improved modal integration.
- Allowances for differences in data availability and quality because of mode or public vs. private ownership give increased flexibility of analysis.
- Separation of data and geographic linkages from the actual application is easier to follow on phased development.
- Migration of disparate databases into a relationally structured enterprise database allows ad hoc queries outside developed analytical tools.

What is the least effective aspect of the intermodal planning process undertaken by the state DOT and why?

The most commonly cited "least effective aspect" of the intermodal planning process centered on the fact that many of the modes that must be considered are owned and operated by the private sector. Problems arise because DOTs have no authority over these modes, there is a lack of information and contacts in the private companies, and it is difficult to obtain information (much of which is proprietary). Further, the private sector often has neither the time nor the inclination to be involved in a systems level approach to planning and programming; rather, their interest is project specific and profit driven.

Another often cited ineffective aspect concerns the programming of intermodal projects, or, specifically, non-highway modes. In some states, each mode has its own separate funding and methods of funding, which makes moving from planning into programming difficult. It is often difficult to divert funds from highway construction and maintenance to non-highway modes, especially when the costs of highway needs typically far exceed available funding.

Other ineffective aspects of the intermodal planning process reported by the DOTs include:

- general lack of information on intermodal passengers and passenger facilities
- challenge of educating the public about the benefits of alternative travel modes
- development of an intermodal plan when there is minimal support from state government
- need to develop a plan when there is only intermittent demand for intermodal planning because of the existence of only a few intermodal facilities in the state.

Does the state DOT have a Congestion Management System (CMS)?

VDOT does not have a CMS; however, systems have been developed for the three non-attainment areas in the state. Twenty-four of the respondents indicated that they have a CMS.

Describe the major components of the CMS.

A close examination of the information provided by the 24 DOTs that reported having a CMS revealed that a number of them (at least 10) were referring to the systems developed or being developed by MPOs. This duplicates the response from VDOT and is not construed to be a true statewide CMS as defined in this report. Several respondents that reported having a CMS noted that the system was jointly developed with the MPOs, with the DOTs being responsible for the non-urbanized portions of the state. Although not labeled a CMS, the Florida DOT has a decision support system for the state's interregional network. The following includes state-by-state descriptions of the components, strategies, or products of several of the CMS plans gleaned from the survey:

Iowa

- Identify urban/rural congested corridors (volume/capacity ratio resulting in an LOS > D).
- Collect travel time data on urban corridors (done by MPOs).
- Develop a "laundry list" of potential solutions from which the MPOs/locals can select.
- Monitor improvements through travel time data collection.

Oregon

- Statewide Congestion Overview Final Report (state and regional trends relating to travel and congestion, perspective on the definition of congestion problems and their significance)
- Statewide Congestion Inventory (inventory of present and potential congestion on all links of the CMS network, including LOS, travel time, and cost-effectiveness)
- Congestion Solution Guidelines (interim guidance on evaluating prospective solutions to congestion problems, primarily from other resources around the nation)
- CMS Manual (CMS organization, network, performance measures, analysis methodologies, monitoring methodologies, and database structures).

Rhode Island

- transportation demand management measures
- traffic operational improvements
- measures to encourage HOV usage
- congestion pricing
- growth management and activity center strategies
- access management techniques
- incident management strategies
- application of ITE technologies
- transit capital and operational improvements.

Tennessee

- definition of the transportation system addressed by the CMS
- inventory and development of data collection procedures, performance measures, and performance monitoring procedures
- identification of the current and potentially congested elements with coordination from the remaining management systems
- identification and evaluation of strategies to eliminate, mitigate, and prevent existing and future traffic congestion
- selection of appropriate strategies, identification of funding sources, and implementation of strategies
- monitoring and evaluation of the implemented strategies

- preparation of an annual report evaluating congested elements and the implemented congestion management projects.

Use of Consultants

Does the state DOT employ consultants to undertake any elements of the transportation planning process; if yes, which elements?

VDOT, along with 36 other respondents, retains consultants for transportation planning projects. Consultants are used in Virginia for urbanized area, small urban area, and corridor planning studies as well as major investment studies. Less than one third of the other respondents retain consultants for urbanized area and small urban area planning; however, most use consultants for corridor planning and major investment studies. More than half of the respondents use consultants for statewide planning, and some of the DOTs retain consultants for site-specific planning. Only five of the respondents use consultants for rural planning. (Subsequent to the completion of this survey, TPD contracted with several consulting firms on a retainer basis to provide services on an as-needed basis. It is anticipated that all types of planning activities will ultimately be undertaken by these consultants.) State DOTs retain consultants for other efforts as follows:

- modeling and travel demand forecasting
- data collection
- environmental impact statements
- access management
- archaeology, ecology, historical, and hazardous materials planning
- modal planning.

Are these consultants hired via the traditional RFP process for each specific job; if no, describe the process.

VDOT and 33 of the other responding states hire consultants via the traditional RFP process. Other hiring practices include the following:

- 2-year continuing contracts with work orders for specific projects as needed (this is similar to VDOT's current practice)
- state pool of prequalified consultants
- streamlined process using purchase orders
- multitask contracts with specific task work orders (block service agreements).

Does the state DOT have a consultant on a retainer basis to undertake short-term or emergency transportation planning studies; if yes, describe the arrangement.

As suggested in responses to the previous question, several state DOTs have this arrangement. One state DOT reported it was in the process of developing a "Traffic Engineering

Services Term Agreement" for its regional offices that would allow the use of consultants on an as-needed basis for particular tasks.